

ENVIRONMENTAL AND PUBLIC PROTECTION CABINET

Department for Environmental Protection

Division for Air Quality

(Amendment)

401 KAR 51:001. Definitions for 401 KAR Chapter 51.

RELATES TO: KRS 224.01-010, 224.20-100, 224.20-110, 224.20-120, 40 C.F.R.  
[CFR] Chapter I, Part 50, Appendices A to K, 51.100(s), 51.121, 51.165, 51.166, 53, 60,  
Appendices A and B, 61, Appendix B, 75, 96, 42 U.S.C. [USC] 7410 to 7671q

STATUTORY AUTHORITY: KRS 224.10-100[(5)]

NECESSITY, FUNCTION, AND CONFORMITY: KRS 224.10-100(5) requires the  
[~~Natural Resources and~~] Environmental and Public Protection Cabinet to promulgate  
[~~prescribe~~] administrative regulations for the prevention, abatement, and control of air  
pollution. This administrative regulation defines the terms used in 401 KAR Chapter 51.  
The definitions contained in this administrative regulation [;] that [~~which~~] have  
corresponding federal definitions have been clarified and simplified but [;] are not more  
stringent nor otherwise different than the corresponding federal definitions.

Section 1. Definitions.

(1) "Acid rain emissions limitation" means a limitation on emissions of SO<sub>2</sub> or  
NO<sub>x</sub> imposed by the Acid Rain Program under 42 U.S.C. [USC] 7651 to 7651o.

(2) "Actual emissions" means the actual rate of emissions of a regulated NSR  
pollutant from an emissions unit, as determined according to the following:

1        (a) Actual emissions as of a particular date equals the average rate, in tons  
2 per year, at which the unit actually emitted the pollutant during a consecutive twenty-  
3 four (24) month period, which precedes that date and is representative of normal source  
4 operation.

5        1. Use of a different time period is allowed if the cabinet determines that a  
6 different time period is more representative of normal source operation; and

7        2. The unit's actual operating hours, production rates, and types of materials  
8 processed, stored, or combusted during the selected time period are used to calculate  
9 actual emissions.

10       (b) The cabinet may presume that source-specific allowable emissions for the  
11 unit are equivalent to the actual emissions of the unit.

12       (c) For an emissions unit, which has not begun normal operations on the  
13 particular date, actual emissions equals the potential to emit of the unit on that date.

14       (d) This definition does not include:

15       1. Calculating if a significant emissions increase has occurred; or

16       2. Establishing a PAL under 401 KAR 51:017, Section 23.

17       (3) "Actuals PAL" or "PAL" means a plantwide applicability limit established  
18 for a major stationary source based on the baseline actual emissions of all emissions  
19 units at the source that emit or have the potential to emit the PAL pollutant.

20       (4) "Adverse impact on visibility" means visibility impairment that interferes  
21 with the management, protection, preservation or enjoyment of the visitor's visual  
22 experience of the Class I area. This determination:

23       1. Is to be made on a case-by-case basis;

2. Considers the geographic extent, intensity, duration, frequency and time of visibility impairment and how these factors correlate with the times of visitor use of the Class I area; and

3. Considers the frequency and timing of natural conditions that reduce visibility.

(5) [(2)] "Affected facility" means an apparatus, building, operation, road, or other entity or series of entities that [which] emits or may emit an air contaminant into the outdoor atmosphere.

(6) [(3)] "Air contaminant" is defined in KRS 224.01-010(1).

(7) [(4)] "Air pollutant" means air contaminant.

(8) [(5)] "Air pollution" is defined in KRS 224.01-010(3).

(9) [(6)] "Air pollution control equipment" means a mechanism, device or contrivance used to control or prevent air pollution, which is not, aside from air pollution control laws and administrative regulations, vital to production of the normal product of the source or to its normal operation.

(10) [(7)] "Allocate" or "allocation" means the determination by the cabinet of the number of NOx allowances to be credited to a NOx budget unit.

(11) [(8)] "Allocation period" means each three (3) year period beginning May 1, 2004.

(12) "Allowable emissions" means:

(a) The emissions rate of a stationary source that is calculated using the maximum rated capacity of the source, unless the source is subject to federally enforceable limits that restrict the operating rate, or hours of operation, or both, and the

1 most stringent of the following:

2       1. The applicable standards of 40 C.F.R. Parts 60 and 61;

3       2. The applicable SIP emissions limitations, including those with a future  
4 compliance date; or

5       3. The emissions rates specified as a federally enforceable permit condition,  
6 including those with a future compliance date; or

7       (b) For an actuals PAL, the emissions rate of a stationary source that is  
8 calculated considering any emission limitations that are enforceable as a practical  
9 matter on the emissions unit's potential to emit, and the most stringent provision of  
10 paragraph (a)1 to 3 of this subsection.

11       (13) [(9)] "Alteration" means:

12       (a) The installation or replacement of air pollution control equipment at a  
13 source; or

14       (b) A physical change in or change in the method of operation of an affected  
15 facility that ~~[which]~~ increases the potential to emit a pollutant to which a standard applies  
16 emitted by the facility or that ~~[which]~~ results in the emission of an air pollutant to which a  
17 standard applies not previously emitted.

18       (14) [(10)] "Alternative method" means a method of sampling and analyzing  
19 for an air pollutant that is not a reference or equivalent method but which has been  
20 demonstrated to the cabinet's and the U.S. EPA's satisfaction to produce adequate  
21 results for its determination of compliance.

22       (15) [(11)] "Ambient air" means that portion of the atmosphere, external to  
23 buildings, to which the general public has access.

1        (16) [(12)]    "Ambient air quality standard" means a numerical expression of a  
2    specified concentration level for a particular air contaminant and the time averaging  
3    interval over which that concentration level is measured and is a goal to be achieved in  
4    a stated time through the application of appropriate preventive or control measures.

5        (17) [(13)]    "ANSI" means American National Standards Institute.

6        (18) [(14)]    "AOAC" means Association of Official Analytical Chemists.

7        (19) [(15)]    "ASTM" means American Society for Testing and Materials.

8        (20)    "Baseline actual emissions" means the rate of emissions, in tons per year,  
9    of a regulated NSR pollutant, that:

10       (a)    For an existing electric utility steam generating unit (EUSGU), the unit  
11    actually emitted during any consecutive twenty-four (24) month period selected by the  
12    owner or operator within the five (5) year period immediately preceding the date the  
13    owner or operator begins actual construction of the project.

14       1.    The rate is an average that:

15       a.    Includes fugitive emissions and emissions associated with startups,  
16    shutdowns, and malfunctions;

17       b.    Is adjusted downward to exclude any non-compliant emissions that  
18    occurred while the source was operating above an emission limitation that was legally  
19    enforceable during the consecutive twenty-four (24) month period; and

20       c.    Is based on any consecutive twenty-four (24) month period for which there  
21    is adequate information for determining annual emissions, in tons per year, and for  
22    adjusting this amount as necessary according to clause b of this subparagraph;

23       2.    Use of a time period other than the twenty-four (24) month period is

allowed, if the cabinet determines that a different time period is more representative of normal source operation; and

3. If a project involves multiple emissions units, only one (1) consecutive twenty-four (24) month period is used to determine the baseline actual emissions for the emissions units being changed, where a different consecutive twenty-four (24) month period is allowed for each regulated NSR pollutant.

(b) For an existing emissions unit that is not an EUSGU, the unit actually emitted during any consecutive 24-month period selected by the owner or operator within the ten (10) year period beginning on or after November 15, 1990, and immediately preceding the earlier of the date the owner or operator begins actual construction of the project or the date a complete permit application is received by the cabinet for a permit required under 401 KAR 51:017 or 401 KAR 51:052.

1. The rate is an average that:

a. Includes fugitive emissions to the extent quantifiable and emissions associated with startups, shutdowns, and malfunctions;

b. Is adjusted downward:

(i) To exclude any non-compliant emissions that occurred while the source was operating above an emission limitation that was legally enforceable during the consecutive twenty-four month period;

(ii) To exclude any emissions that would have exceeded an emission limitation with which the major stationary source is required currently to comply, if the source had been required to comply with the limitations during the consecutive twenty-four (24) month period; and

1        (iii) For an emission limitation that is part of a maximum achievable control  
2 technology standard proposed or promulgated under 40 C.F.R. Part 63, only if the  
3 Commonwealth of Kentucky has taken credit for the emissions reductions in an  
4 attainment demonstration or maintenance plan consistent with 40 C.F.R.  
5 51.165(a)(3)(ii)(G); and

6        c. Is based on any consecutive twenty-four (24) month period for which there  
7 is adequate information for determining annual emissions, in tons per year, and for  
8 adjusting this amount as necessary according to clause b of this subparagraph; and

9        2. If a project involves multiple emissions units, only one (1) consecutive  
10 twenty-four (24) month period is used to determine the baseline actual emissions for the  
11 emissions units being changed; however, a different consecutive twenty-four (24) month  
12 period is allowed for each regulated NSR pollutant.

13        (c) For a new emissions unit, equals zero for determining the emissions  
14 increase that will result from the initial construction and operation of the new unit and  
15 thereafter, for all other purposes, equals the unit's potential to emit.

16        (d) For a PAL for a stationary source, is determined as follows:

17        1. For an existing EUSGU, in accordance with the procedures contained in  
18 paragraph (a) of this subsection;

19        2. For other existing emissions units, in accordance with the procedures  
20 contained in paragraph (a) of this subsection; and

21        3. For a new emissions unit, in accordance with the procedures contained in  
22 paragraph (b) of this subsection.

23        (21) "Baseline area" means an intrastate area, and every part of that area,

designated as attainment or unclassifiable pursuant to 42 U.S.C. 7404(d)(1)(A)(ii) or (iii)  
in which the major source or major modification establishing the minor source baseline  
date would construct or would have an air quality impact equal to or greater than one (1)  
µg/m<sup>3</sup> annual average of the pollutant for which the minor source baseline date is  
established.

(a) Area redesignations under 42 U.S.C. 7404(d)(1)(A)(ii) or (iii) cannot  
intersect or be smaller than the area of impact of a major stationary source or major  
modification which:

1. Establishes a minor source baseline date; or  
2. Is subject to 401 KAR 51:017 and would be constructed in the  
Commonwealth of Kentucky.

(b) A baseline area established originally for total suspended particulate  
(TSP) increments remains in effect to determine the amount of available PM<sub>10</sub>  
increments, unless the cabinet rescinds the corresponding minor source baseline date.

(22) "Baseline concentration" means the ambient concentration level that  
exists in the baseline area on the date the applicable minor source baseline date is  
established.

(a) A baseline concentration is determined for each pollutant for which a  
minor source baseline date is established and includes:

1. The actual emissions representative of sources in existence on the  
applicable minor source baseline date, except as provided in paragraph (b) of this  
subsection; and

2. The allowable emissions of major stationary sources that commenced



construction before the major source baseline date but were not in operation by the applicable minor source baseline date.

(b) The following are not included in the baseline concentration and thus affect the maximum applicable allowable increase:

1. Actual emissions at a major source, which result from construction commencing after the major source baseline date; and

2. Actual emissions increases and decreases at a stationary source occurring after the minor source baseline date.

(23) "Baseline date" means major source baseline date or minor source baseline date and is established for each pollutant for which increments or other equivalent measures have been established if the area in which the proposed source or modification would construct is designated as attainment or unclassifiable pursuant to 42 U.S.C. 7407(d)(1)(A)(ii) or (iii) for the pollutant on the date of the source's complete application; and

(a) For a major stationary source, the pollutant would be emitted in significant amounts; or

(b) For a major modification, there would be a significant net emissions increase of the pollutant.

(24) "Begin actual construction" means:

(a) Initiation of physical on-site construction activities that are of a permanent nature and include installation of building supports and foundations, laying underground pipe work, and construction of permanent storage structures.

(b) For a change in method of operations, those on-site activities other than

1 the preparatory activities, which mark the initiation of the change.

2 (25) "Best available control technology" or "BACT" means an emissions  
3 limitation, including a visible emission standard, based on the maximum degree of  
4 reduction for each regulated NSR pollutant that will be emitted from a proposed major  
5 stationary source or major modification that:

6 (a) Is determined by the cabinet on a case-by-case basis after taking into  
7 account energy, environmental, and economic impacts and other costs, to be  
8 achievable by the source or modification through application of production processes or  
9 available methods, systems, and techniques, including fuel cleaning or treatment or  
10 innovative fuel combustion techniques for control of that pollutant;

11 (b) Does not result in emissions of a pollutant that would exceed the  
12 emissions allowed by an applicable standard of 40 C.F.R. Parts 60 and 61; and

13 (c) Is satisfied by a design, equipment, work practice, or operational standard  
14 or combination of standards approved by the cabinet, if:

15 1. The cabinet determines technological or economic limitations on the  
16 application of measurement methodology to a particular emissions unit would make the  
17 imposition of an emissions standard infeasible;

18 2. The standard establishes the emissions reduction achievable by  
19 implementation of the design, equipment, work practice or operation; and

20 3. The standard provides for compliance by means that achieve equivalent  
21 results.

22 (26) [(16)] "BOD" means biochemical oxidant demand.

23 (27) [(17)] "Boiler" means an enclosed fossil or other fuel-fired combustion

1 device used to produce heat and to transfer heat to recirculating water, steam, or other  
2 medium.

3 (28) [(18)] "BTU" means British thermal unit.

4 (29) "Building, structure, facility, or installation" means all of the pollutant  
5 emitting activities that:

6 (a) Belong to the same industrial grouping, having the same two (2) digit  
7 code, as described in the Standard Industrial Classification Manual, 1987;

8 (b) Are located on one (1) or more contiguous or adjacent properties;

9 (c) Are under the control of the same person or persons under common  
10 control; and

11 (d) Do not include the activities of a vessel.

12 (30) [(19)] "° C" means degree Celsius (centigrade).

13 (31) [(20)] "Cabinet" is defined in KRS 224.01-010(9).

14 (32) [(21)] "Cal" means calorie.

15 (33) [(22)] "Capital expenditure" means an expenditure for a physical or  
16 operational change to an affected facility that:

17 (a) Exceeds the product of:

18 1. The applicable "annual asset guidelines repair allowance percentage"  
19 specified in the Internal Revenue Service Publication 534; and

20 2. The affected facility's basis, as defined by 26 U.S.C. [USC] 1012; and

21 (b) Is not reduced by an excluded addition as defined in IRS Publication 534.

22 (34) [(23)] "cfm" means cubic feet per minute.

23 (35) [(24)] "CH<sub>4</sub>" means methane.

1       (36) "Clean coal technology" means a technology, including technologies  
2 applied at the precombustion, combustion, or post-combustion stage, at a new or  
3 existing facility that will achieve significant reductions in air emissions of sulfur dioxide  
4 or oxides of nitrogen associated with the utilization of coal in the generation of electricity  
5 or process steam that was not in widespread use as of November 15, 1990.

6       (37) "Clean coal technology demonstration project" means a commercial  
7 demonstration of clean coal technology, with a federal contribution of at least twenty  
8 (20) percent of the total cost of the project and funding appropriated as follows:

9       (a) Under the heading "Department of Energy-Clean Coal Technology," up to  
10 a total amount of \$2,500,000,000; or

11       (b) To the U.S. EPA for a similar project.

12       (38) "Clean Unit" means an emissions unit that:

13       (a) Has been issued a major NSR permit that requires compliance with BACT  
14 or LAER; is complying with the applicable BACT or LAER requirements; and qualifies as  
15 a Clean Unit pursuant to 401 KAR 51:017, Section 20 or 401 KAR 51:052, Section 11;

16       (b) Has been designated by the cabinet as a Clean Unit, based on the criteria  
17 in 401 KAR 51:017, Section 21(2) or 401 KAR 51:052, Section 12(2), using a SIP  
18 approved permitting process; or

19       (c) Has been designated as a Clean Unit by the U.S. EPA in accordance with  
20 40 C.F.R. 52.21(y)(3)(i) to (iv).

21       (39) [(25)] "Clinker" means the product of a portland cement kiln from which  
22 finished cement is manufactured by milling and grinding.

23       (40) [(26)] "CO" means carbon monoxide.

1        (41) ~~[(27)]~~    "CO<sub>2</sub>" means carbon dioxide.

2        (42) ~~[(28)]~~    "COD" means chemical oxidant demand.

3        (43)    "Collateral pollutant" means an air contaminant for which the emissions  
4 rate is increased as a result of undertaking a pollution control project.

5        (44) ~~[(29)]~~    "Combined cycle system" means a system comprised of one (1) or  
6 more combustion turbines, heat recovery steam generators, or steam turbines  
7 configured to improve overall efficiency of electricity generation or steam production.

8        (45) ~~[(30)]~~    "Combustion turbine" means an enclosed fossil or other fuel-fired  
9 device that is comprised of a compressor, a combustor, and a turbine, and in which the  
10 flue gas resulting from the combustion of fuel in the combustor passes through the  
11 turbine, rotating the turbine.

12       (46) ~~[(31)]~~    "Commence" means that an owner or operator:

13       (a)    Has undertaken a continuous program of construction, modification, or  
14 reconstruction of an affected facility, or that an owner or operator has entered into a  
15 contractual obligation to undertake and complete, within a reasonable time, a  
16 continuous program of construction, modification, or reconstruction of an affected  
17 facility; or [-]

18       (b)    For construction of a major stationary source or major modification in the  
19 PSD or NSR program, has all necessary preconstruction approvals or permits, and:

20       1.    Has begun, or caused to begin, a continuous program of actual on-site  
21 construction of the source, to be completed within a reasonable time; or

22       2.    Has entered into binding agreements or contractual obligations, which  
23 cannot be cancelled or modified without substantial loss to the owner or operator, to

1 undertake a program of actual construction of the source to be completed within a  
2 reasonable time.

3 (47) ~~[(32)]~~ "Commence commercial operation" means to have begun to  
4 produce steam, gas, or other heated medium used to generate electricity for sale or  
5 use. Except as provided in 401 KAR 51:195 or 40 C.F.R. ~~[CFR]~~ 96.5:

6 (a) For a unit that is a NOx budget unit under 40 C.F.R. ~~[CFR]~~ 96.4, on the  
7 date the unit commences commercial operation, the date remains the unit's date of  
8 commencement of commercial operation even if the unit is subsequently modified,  
9 reconstructed, or repowered.

10 (b) For a unit that is not a NOx budget unit under 40 C.F.R. ~~[CFR]~~ 96.4, on  
11 the date the unit commences commercial operation, the date the unit becomes a NOx  
12 budget unit under 40 C.F.R. ~~[CFR]~~ 96.4 is the unit's date of commencement of  
13 commercial operation.

14 (48) ~~[(33)]~~ "Commence operation" means, for a NOx budget unit, to have  
15 begun a mechanical, chemical, or electronic process, including start-up of a unit's  
16 combustion chamber. Except as provided in 401 KAR 51:195 or 40 C.F.R. ~~[CFR]~~ 96.5:

17 (a) For a unit that is a NOx budget unit under 40 C.F.R. ~~[CFR]~~ 96.4 on the  
18 date of commencement of operation, the date remains the unit's date of  
19 commencement of operation even if the unit is subsequently modified, reconstructed, or  
20 repowered.

21 (b) For a unit that is not a NOx budget unit under 40 C.F.R. ~~[CFR]~~ 96.4 on the  
22 date of commencement of operation, the date the unit becomes a NOx budget unit  
23 under 40 C.F.R. ~~[CFR]~~ 96.4 is the unit's date of commencement of operation.

1        (49) "Complete" means, in reference to an application for a major NSR permit,  
2 that the application contains information necessary for processing the application.  
3 Designating an application complete for permit processing does not preclude the  
4 cabinet from requesting or accepting additional information.

5        (50) [(34)] "Compliance schedule" means a time schedule of remedial  
6 measures including an enforceable sequence of actions or operations leading to  
7 compliance with a limitation or standard.

8        (51) [(35)] "Compliance supplement pool" means the quantity of NOx  
9 allowances provided to Kentucky by the U.S. EPA to be:

10        (a) Allocated to NOx budget units that achieve early reduction; or

11        (b) Used to assist NOx budget sources that are unable to meet the  
12 compliance deadline as provided in 401 KAR 51:180, Section 5.

13        (52) [(36)] "Construction" means:

14        (a) Fabrication, erection, installation or modification of an air contaminant  
15 source.

16        (b) For the NSR program, any physical change or change in the method of  
17 operation, including fabrication, erection, installation, demolition, or modification of an  
18 emissions unit that would result in a change in emissions at an air contaminant source.

19        (53) "Continuous emissions monitoring system" or "CEMS" means all of the  
20 equipment that may be required to meet the data acquisition and availability  
21 requirements of 401 KAR 51:017 or 401 KAR 51:052 to sample, condition, if applicable,  
22 analyze, and provide a record of emissions on a continuous basis.

23        (54) [(37)] "Continuous emission monitoring system for NOx" or "CEMS for

NOx" means the equipment required by 40 C.F.R. ~~[CFR]~~ 96.70 to 96.76 to sample, analyze, measure, and provide, by readings taken at least once every fifteen (15) minutes of the measured parameters, a permanent record of NOx emissions, expressed in tons per hour for NOx. The following systems are necessary component parts, as required by 40 C.F.R. ~~[CFR]~~ Part 75, included in a continuous emission monitoring system:

(a) Flow monitor;

(b) NOx pollutant concentration monitor;

(c) Diluent gas monitor (O<sub>2</sub> or CO<sub>2</sub>) if required by 40 C.F.R. ~~[CFR]~~ 96.70 to 96.76;

(d) Continuous moisture monitor if required by 40 C.F.R. ~~[CFR]~~ 96.70 to 96.76; and

(e) Automated data acquisition and handling system.

(55) "Continuous emissions rate monitoring system" or CERMS" means the total equipment required for the determination and recording of the pollutant mass emissions rate in terms of mass per unit of time.

(56) ~~[(38)]~~ "Continuous monitoring system" means the total equipment, required under the applicable administrative regulations used to sample, to condition, (if applicable), to analyze and to provide a permanent record of emissions or process parameters.

(57) "Continuous parameter monitoring system" or "CPMS" means all of the equipment necessary to meet the data acquisition and availability requirements of 401 KAR 51:017 to:



1        (a) Monitor process and control device operational parameters such as  
2 control device secondary voltages and electric currents;

3        (b) Monitor other information such as gas flow rate, ozone or carbon dioxide  
4 concentrations; and

5        (c) Record average operational parameter values on a continuous basis.

6        (58) [(39)] "Control period" means:

7        (a) For the year 2004, the period beginning May 31, 2004, and ending  
8 September 30, 2004, inclusive; and

9        (b) For all other years, the period beginning May 1 of a year and ending  
10 September 30 of the same year, inclusive.

11        (59) [(40)] "Director" means Director of the Division for Air Quality of the  
12 [(Natural Resources and] Environmental and Public Protection Cabinet.

13        (60) [(41)] "District" is defined in KRS 224.01-010(11).

14        (61) [(42)] "dscf" means dry cubic feet at standard conditions.

15        (62) [(43)] "dscm" means dry cubic meter at standard conditions.

16        (63) [(44)] "Electric generating unit" means, for 401 KAR 51:160 to 51:195, a  
17 fossil fuel-fired boiler, combustion turbine, or a combined cycle system used to generate  
18 twenty-five (25) megawatts or more of electricity, some of which is offered for sale.

19        (64) "Electric utility steam generating unit" or "EUSGU" means, for the PSD  
20 and NSR programs, a steam electric generating unit that is constructed for the purpose  
21 of supplying for sale:

22        (a) More than one-third (1/3) of its potential electric output capacity;

23        (b) More than twenty-five (25) megawatt electrical output to a utility power

1 distribution system for sale; and

2 (c) Steam to a steam-electric generator that would produce electrical energy  
3 is also considered in determining the electrical energy output capacity of the affected  
4 facility.

5 (65) [(45)] "Emission standard" means that numerical limit that [which] fixes  
6 the amount of an air contaminant or air contaminants that may be vented into the  
7 atmosphere from an affected facility or from air pollution control equipment installed in  
8 an affected facility.

9 (66) "Emissions unit" means any part of a stationary source including an  
10 EUSGE that emits or will have the potential to emit a regulated NSR. For 401 KAR  
11 51:017 and 401 KAR 51:052, there are two types of emissions units:

12 (a) A new emissions unit, which is any emissions unit that is or will be newly  
13 constructed and that has existed for less than two (2) years from the date the unit first  
14 operated; and

15 (b) An existing emissions unit, which is any emissions unit that does not meet  
16 the requirements in paragraph (a) of this subsection or is a replacement unit.

17 (67) [(46)] "Enforceable as a practical matter" means that the emission or  
18 other standards contained in a permit or compliance schedule include:

19 (a) Technically accurate emission standards, and the portions of the source  
20 that are subject to the standards;

21 (b) A time period adequate to demonstrate compliance with the standards;  
22 and

23 (c) The method the source will use to achieve and demonstrate compliance

1 with the limitations and standards, including appropriate monitoring, recordkeeping, and  
2 reporting.

3 (68) [(47)] "Equivalent method" means a method of sampling and analyzing  
4 for an air pollutant that [~~which~~] has been demonstrated to the cabinet's and the U.S.  
5 EPA's satisfaction to have a consistent and quantitatively known relationship to the  
6 reference method, under specified conditions.

7 (69) [(48)] "Excess NOx emissions" means any tonnage of nitrogen oxides  
8 emitted by a NOx budget unit during a control period that exceeds the NOx budget  
9 emissions limitation for the unit.

10 (70) [(49)] "Exempt solvent" means an organic compound listed in the  
11 definition of volatile organic compound as not participating in atmospheric  
12 photochemical reactions.

13 (71) [(50)] "Existing source" means a source that [~~which~~] is not a new source.

14 (72) [(51)] "Extreme nonattainment county" or "extreme nonattainment area"  
15 means a county or portion of a county designated extreme nonattainment for the one (1)  
16 hour national ambient air quality standard for ozone in 401 KAR 51:010.

17 (73) [(52)] "° F" means degree Fahrenheit.

18 (74) "Federal land manager" means, for any lands in the United States, the  
19 secretary of the department with authority over those lands.

20 (75) "Federally enforceable" means all limitations and conditions that are  
21 enforceable by the U.S. EPA, including:

22 (a) Requirements developed under 40 C.F.R. Parts 60 and 61;

23 (b) Requirements in the Kentucky state implementation plan (SIP) approved

1 by the U.S. EPA; and

2 (c) Any permit requirements established under 40 C.F.R. 52.21 or under  
3 regulations approved under 40 C.F.R. Part 51, Subpart I, including operating permits  
4 issued under an EPA-approved program incorporated into the SIP, which expressly  
5 requires adherence to a permit issued under the program.

6 (76) [(53)] "Federally-enforceable permit" means a permit issued under 401  
7 KAR 52:020 or 401 KAR 52:030, as appropriate.

8 (77) [(54)] "Fixed capital cost" means the capital needed to provide all the  
9 depreciable components.

10 (78) [(55)] "Fossil fuel" means natural gas, petroleum, coal, or a form of solid,  
11 liquid, or gaseous fuel derived from natural gas, petroleum, or coal.

12 (79) [(56)] "Fossil fuel fired" means, for a unit:

13 (a) The combustion of fossil fuel, alone or in combination with another fuel, if  
14 the fossil fuel combusted comprises more than fifty (50) percent of the annual heat input  
15 on a BTU basis during a year starting in 1995 or, if a unit had no heat input starting in  
16 1995, during the last year of operation of the unit prior to 1995; or

17 (b) The combustion of fossil fuel, alone or in combination with another fuel, if  
18 the fossil fuel is projected to comprise more than fifty (50) percent of the annual heat  
19 input on a BTU basis during a year, and the unit is to be fossil fuel fired as of the date  
20 during the year the unit begins combusting fossil fuel.

21 (80) [(57)] "ft" means feet or foot.

22 (81) [(58)] "Fuel" means natural gas, petroleum, coal, wood, or a form of solid,  
23 liquid, or gaseous fuel derived from these materials for the purpose of creating useful

1 heat.

2 (82) [(59)] "Fugitive emissions" means those emissions that [which] could not  
3 reasonably pass through a stack, chimney, vent, or other functionally equivalent  
4 opening.

5 (83) [(60)] "g" means gram.

6 (84) [(61)] "gal" means gallon.

7 (85) [(62)] "General fund" is defined in KRS 48.010(13)(a).

8 (86) [(63)] "Generator" means a device that produces electricity.

9 (87) [(64)] "gr" means grain.

10 (88) [(65)] "HCl" means hydrochloric acid.

11 (89) [(66)] "Heat input" means the product, [(in MMBTU per unit of time, {}] of  
12 the gross calorific value of the fuel, {}]in BTU per lb,{}] and the fuel feed rate into a  
13 combustion device, [(in mass of fuel per unit of time, {}] that:

14 (a) Does not include the heat derived from preheated combustion air,  
15 recirculated flue gases, or exhaust from other sources; and

16 (b) Is measured, recorded, and reported to the cabinet by the NOx authorized  
17 account representative in accordance with 40 C.F.R. [CFR] 96.70 to 96.76.

18 (90) [(68)] "HF" means hydrogen fluoride.

19 (91) [(67)] "Hg" means mercury.

20 (92) "High terrain" means an area having an elevation of 900 feet or more  
21 above the base of the stack of a source.

22 (93) [(69)] "hr" means hour.

23 (94) [(70)] "Hydrocarbon" means an organic compound consisting

1 predominantly of carbon and hydrogen.

2 (95) "Hydrocarbon combustion flare" means:

3 (a) A flare used to comply with an applicable New Source Performance  
4 Standard (NSPS) or Maximum Achievable Control Technology (MACT) standard,  
5 including uses of flares during startup, shutdown, or malfunction permitted under the  
6 standard; or

7 (b) A flare that serves to control emissions of waste streams comprised  
8 predominately of hydrocarbons and containing no more than 230 µg/dscm hydrogen  
9 sulfide.

10 (96) [(71)] "H<sub>2</sub>O" means water.

11 (97) [(72)] "H<sub>2</sub>S" means hydrogen sulfide.

12 (98) [(73)] "H<sub>2</sub>SO<sub>4</sub>" means sulfuric acid.

13 (99) [(74)] "in" means inch.

14 (100) [(75)] "Incineration" means the process of igniting and burning solid,  
15 semisolid, liquid, or gaseous combustible wastes.

16 (101) [(76)] "Industrial boiler or turbine" means a fossil fuel-fired boiler,  
17 combustion turbine, or a combined cycle system having a maximum design heat input  
18 of 250 MMBTU per hour or more that is not an electric generating unit.

19 (102) "Innovative control technology" means a system of air pollution control that  
20 has not been adequately demonstrated in practice, but will have a substantial likelihood  
21 of achieving:

22 (a) Greater continuous emissions reduction than any control system in current  
23 practice; or

1        (b) At least comparable reductions at lower cost in terms of energy,  
2 economics, or non-air quality environmental impacts.

3        (103) [(77)] "Intermittent emissions" means emissions of particulate matter into  
4 the open air from a process [;] that [which] operates for less than any six (6) consecutive  
5 minutes.

6        (104) [(78)] "J" means joule.

7        (105) [(79)] "Kg" means kilogram.

8        (106) [(80)] "l" means liter.

9        (107) [(81)] "lb" means pound.

10       (108) "Legally enforceable" means the cabinet or the U.S. EPA has the authority  
11 to enforce a certain restriction.

12       (109) [(82)] "Long dry kiln " means a kiln that employs no preheating of the feed  
13 and has a dry inlet feed.

14       (110) [(83)] "Long wet kiln" means a kiln that employs no preheating of the feed  
15 and the inlet feed to the kiln is a slurry.

16       (111) "Low terrain" means an area other than high terrain.

17       (112) "Lowest achievable emissions rate" or "LAER" means, for any source, the  
18 more stringent rate of emissions based on:

19       (a) The most stringent emissions limitation that is contained in the Kentucky  
20 SIP for the class or category of stationary source, unless the owner or operator of the  
21 proposed stationary source demonstrates that the limitations are not achievable; or

22       (b) The most stringent emissions limitation that is achieved in practice by the  
23 class or category of stationary sources.

1        1. If this limitation is applied to a modification, this is the lowest achievable  
2 emissions rate for the new or modified emissions units at the stationary source.

3        2. The application of this term does not permit a proposed new or modified  
4 stationary source to emit any pollutant in excess of the amount allowable under an  
5 applicable new source standard of performance.

6        (113) [(84)] "m" means meter.

7        (114) [(85)] "m<sup>3</sup>" means cubic meter.

8        (115) "Major emissions unit" means:

9        (a) Any emissions unit that emits or has the potential to emit 100 tons per  
10 year or more of a PAL pollutant in an attainment area; or

11        (b) Any emissions unit that emits or has the potential to emit a PAL pollutant  
12 in an amount that is equal to or greater than the major source threshold for the PAL  
13 pollutant as defined by the Clean Air Act for nonattainment areas.

14        (116) "Major modification" means a physical change in or a change in the  
15 method of operation of a major stationary source that would result in a significant  
16 emissions increase and a significant net emissions increase of a regulated NSR  
17 pollutant.

18        (a) A significant emissions increase from any emissions units or net  
19 emissions increase at a major stationary source that is significant for volatile organic  
20 compounds is considered significant for ozone.

21        (b) A physical change or change in the method of operation does not include:

22        1. Routine maintenance, repair and replacement;

23        2. Use of alternative fuel or raw material by reason of an order or a natural



1 gas curtailment plan in effect under a federal act;

2       3. Use of an alternative fuel at a steam generating unit to the extent that the  
3 fuel is generated from municipal solid waste;

4       4. Use of an alternative fuel or raw material by a stationary source that:

5       a. The source was capable of accommodating before January 6, 1975, for  
6 401 KAR 51:017, or December 21, 1976, for 401 KAR 51:052; unless the change would  
7 be prohibited under a federally enforceable permit condition that was established after  
8 January 6, 1975, for 401 KAR 51:017, or December 21, 1976, for 401 KAR 51:052,  
9 pursuant to 40 C.F.R. 51.165 or 51.166; or

10       b. The source is approved to use under a permit issued pursuant to 401 KAR  
11 51:017 or 401 KAR 51:052;

12       5. An increase in the hours of operation or in the production rate, unless the  
13 change is prohibited under any federally enforceable permit condition established after  
14 January 6, 1975, for 401 KAR 51:017 or December 21, 1976, for 401 KAR 51:052  
15 pursuant to 40 C.F.R. 52.21; after June 6, 1979, pursuant to 401 KAR 51:015; after  
16 September 22, 1982, pursuant to 401 KAR 51:017; or under 401 KAR 52:020 and 401  
17 KAR 51:016E;

18       6. A change in ownership at a stationary source;

19       7. The addition, replacement or use of a pollution control project at an  
20 existing emissions unit meeting the requirements of 401 KAR 51:017, Section 22 or 401  
21 KAR 51:052, Section 13, as applicable;

22       8. The installation, operation, cessation, or removal of a temporary clean  
23 coal technology demonstration project, if the project complies with the Kentucky SIP

and other requirements necessary to attain and maintain the national ambient air quality standards during the project and after it is terminated;

9. The installation or operation of a permanent clean coal technology demonstration project that constitutes repowering, if the project does not result in an increase in the potential to emit of a regulated pollutant emitted by the unit, on a pollutant-by-pollutant basis; or

10. The reactivation of a very clean coal-fired electric utility steam generating unit.

(117) "Major NSR permit" means a permit issued under Kentucky's PSD or NSR program.

(118) [(86)] "Major source" means a source of an air pollutant with a [which the] potential emission rate [is] equal to or greater than 100 tons per year of any one (1) of the following pollutants: particulate matter, sulfur oxides, nitrogen oxides, volatile organic compounds, [or] carbon monoxide, or ODS.

(119) "Major source baseline date" means:

(a) For particulate matter and sulfur dioxide, January 6, 1975; and

(b) For nitrogen dioxide, February 8, 1988.

(120)(a) "Major stationary source" means:

1a. A stationary source of air pollutants that emits, or has the potential to emit 100 tons per year or more of a regulated NSR pollutant; or

b. For the PSD program, any of the following stationary sources of air pollutants that emits, or has the potential to emit, 100 tons per year or more of a regulated NSR pollutant: fossil fuel-fired steam electric plants of more than 250 million

BTU per hour heat input, coal cleaning plants with thermal dryers, kraft pulp mills, portland cement plants, primary zinc smelters, iron and steel mill plants, primary aluminum ore reduction plants, primary copper smelters, municipal incinerators capable of charging more than 250 tons of refuse per day, hydrofluoric, sulfuric, and nitric acid plants, petroleum refineries, lime plants, phosphate rock processing plants, coke oven batteries, sulfur recovery plants, carbon black plants (furnace process), primary lead smelters, fuel conversion plants, sintering plants, secondary metal production plants, chemical process plants, fossil fuel boilers, or combination of fossil fuel boilers, totaling more than 250 million BTU per hour heat input, petroleum storage and transfer units with a total storage capacity exceeding 300,000 barrels, taconite ore processing plants, glass fiber processing plants, and charcoal production plants;

2. Notwithstanding the stationary source size specified in subparagraph 1b of this paragraph, a stationary source which emits, or has the potential to emit, 250 tons per year or more of a regulated NSR pollutant; or

3. Any physical change that will occur at a stationary source not otherwise qualifying under this subsection as a major stationary source, if the change will constitute a major stationary source by itself.

(b) A major stationary source that is major for volatile organic compounds is considered major for ozone.

(c) The fugitive emissions of a stationary source are not included in determining if the source is a major stationary source, unless the source belongs to one (1) of the following categories of stationary sources:

1. Coal cleaning plants with thermal dryers;

- 1        2. Kraft pulp mills;
- 2        3. Portland cement plants;
- 3        4. Primary zinc smelters;
- 4        5. Iron and steel mills;
- 5        6. Primary aluminum ore reduction plants;
- 6        7. Primary copper smelters;
- 7        8. Municipal incinerators capable of charging more than 250 tons of refuse  
8 per day;
- 9        9. Hydrofluoric, sulfuric, or nitric acid plants;
- 10       10. Petroleum refineries;
- 11       11. Lime plants;
- 12       12. Phosphate rock processing plants;
- 13       13. Coke oven batteries;
- 14       14. Sulfur recovery plants;
- 15       15. Carbon black plants (furnace process);
- 16       16. Primary lead smelters;
- 17       17. Fuel conversion plants;
- 18       18. Sintering plants;
- 19       19. Secondary metal production plants;
- 20       20. Chemical process plants;
- 21       21. Fossil-fuel boilers, or combination of fossil-fuel boilers, totaling more than  
22 250 million BTUs per hour heat input;
- 23       22. Petroleum storage and transfer units with a total storage capacity

1 exceeding 300,000 barrels;

2 23. Taconite ore processing plants;

3 24. Glass fiber processing plants;

4 25. Charcoal production plants;

5 26. Fossil fuel-fired steam electric plants of more than 250 million BTUs per  
6 hour heat input; and

7 27. Any stationary source category that, as of August 7, 1980, is being  
8 regulated under 42 U.S.C. 7411 or 7412.

9 (121) [(87)] "Malfunction" means a sudden and infrequent failure of air pollution  
10 control equipment, process equipment, or a process to operate in a normal or usual  
11 manner that is not caused entirely or in part by poor maintenance, careless operation,  
12 or other upset condition or equipment breakdown that could have been reasonably  
13 prevented.

14 (122) "Mandatory Class I area" means an area identified in 40 C.F.R. 81,  
15 Subpart D, if the administrator of the U.S. EPA, in consultation with the Secretary of the  
16 United States Department of Interior, has determined visibility to be an important value.

17 (123) [(88)] "Marginal nonattainment county" or "marginal nonattainment area"  
18 means a county or portion of a county designated marginal nonattainment for the one  
19 (1) hour national ambient air quality standard for ozone in 401 KAR 51:010.

20 (124) [(89)] "Maximum design heat input" means the ability of a unit to combust  
21 a stated maximum amount of fuel per hour on a steady state basis, as determined by  
22 the physical design and physical characteristics of the unit.

23 (125) [(90)] "Maximum potential hourly heat input" means an hourly heat input

used for reporting purposes when a unit lacks certified monitors to report heat input and is:

(a) Value calculated according to 40 C.F.R. [~~GFR~~] Part 75 using the maximum fuel flow rate and the maximum gross calorific value, if the unit intends to use 40 C.F.R. [~~GFR~~] Part 75, Appendix D to report heat input; or

(b) Value reported according to 40 C.F.R. [~~GFR~~] Part 75 using the maximum potential flow rate and either the maximum percent CO<sub>2</sub> concentration (in percent CO<sub>2</sub>) or the minimum percent O<sub>2</sub>, if the unit intends to use a flow monitor and a diluent gas monitor.

~~(126)~~ [(94)] "Maximum potential NO<sub>x</sub> emission rate" means the emission rate of NO<sub>x</sub> (in lb per MMBTU) calculated according to 40 C.F.R. [~~GFR~~] 75, Appendix F, Section 3, using the maximum potential NO<sub>x</sub> concentration as defined in 40 C.F.R. [~~GFR~~] 75, Appendix A, Section 2, and the maximum percent O<sub>2</sub> or the minimum percent CO<sub>2</sub> under all operating conditions of the unit except for unit startup, shutdown, and malfunction.

~~(127)~~ [(92)] "Maximum rated hourly heat input" means a unit specific maximum hourly heat input (MMBTU) which is the higher of the manufacturer's maximum rated hourly heat input or the highest observed hourly heat input.

~~(128)~~ [(93)] "Mid-kiln firing " means the secondary firing in kilns by injecting solid fuel at an intermediate point in the kiln using a specially designed feed injection mechanism for the purpose of decreasing NO<sub>x</sub> emissions through:

(a) Burning part of the fuel at a lower temperature; and

(b) Reducing-conditions at the solid waste injection point that may destroy

1 some of the NO<sub>x</sub> formed upstream in the kiln burning zone.

2 (129) [(94)] "min" means minute.

3 (130)(a) "Minor source baseline date" means the earliest date after the  
4 trigger date on which a major stationary source or a major modification subject to 40  
5 C.F.R. 52.21 or to regulations approved under 40 C.F.R. 51.166 submits a complete  
6 application under the relevant regulations:

7 1. For particulate matter and sulfur dioxide, the trigger date is August 7,  
8 1977; and

9 2. For nitrogen dioxide, the trigger date is February 8, 1988.

10 (b) A minor source baseline date established originally for the TSP  
11 increments remains in effect to determine the amount of available PM<sub>10</sub> increments,  
12 except that the cabinet may rescind the minor source baseline date if it is shown, to the  
13 satisfaction of the cabinet, that the emissions increase from the major modification  
14 responsible for triggering that date did not result in a significant amount of PM<sub>10</sub>  
15 emissions.

16 (c) The baseline date is established for each pollutant for which increments or  
17 other equivalent measures have been established if:

18 1. The area in which the proposed source or modification will construct is  
19 designated as attainment or unclassifiable pursuant to 42 U.S.C. 7404(d)(1)(A)(ii) or (iii)  
20 for the pollutant on the date of its complete application under the relevant regulations;  
21 and

22 2. For a major stationary source, the pollutant will be emitted in significant  
23 amounts or a significant net emissions increase of the pollutant will occur for a major

1 modification.

2 (131) [(95)] "mg" means milligram.

3 (132) [(96)] "µg" means microgram.

4 (133) [(97)] "MJ" means megajoules.

5 (134) [(98)] "MM" means million.

6 (135) [(99)] "mm" means millimeter.

7 (136) [(100)] "mo" means month.

8 (137) [(101)] "Moderate nonattainment county" or "moderate nonattainment  
9 area" means a county or portion of a county designated moderate nonattainment for the  
10 one (1) hour national ambient air quality standard for ozone in 401 KAR 51:010.

11 (138) [(102)] "Modification" means a physical change in, or a change in the  
12 method of operation of, an affected facility that [which]:

13 (a) Increases the amount of a regulated air pollutant [(to which a standard  
14 applies)] emitted into the atmosphere by that facility or that [which] results in the  
15 emission of a regulated air pollutant into the atmosphere not previously emitted; and

16 (b) Is not solely:

17 1. Maintenance, repair, or replacement that the cabinet determines to be  
18 routine for a source category;

19 2. An increase in production rate of an affected facility, if that increase can  
20 be accomplished without a capital expenditure on that facility;

21 3. An increase in the hours of operation;

22 4. Use of an alternative fuel or raw material if, prior to the date a standard  
23 becomes applicable to that source type, the affected facility was designed to



1 accommodate that alternative use. A facility is ~~[shall be]~~ considered to be designed to  
2 accommodate an alternative fuel or raw material if that use could be accomplished  
3 under the facility's construction specifications as amended prior to the change;

4 5. Conversion to coal required for energy considerations, as specified in 42  
5 U.S.C. [USC] 7411(a)(8);

6 6. The addition or use of a system or device whose primary function is the  
7 reduction of air pollutants, unless an emission control system is removed or is replaced  
8 by a system which the cabinet determines to be less environmentally beneficial; or

9 7. The relocation or change in ownership of a source.

10 (139) [(403)] "Monitoring device" means the total equipment, required in  
11 applicable administrative regulations, used to measure and record ~~[(if applicable)]~~  
12 process parameters.

13 (140) [(404)] "Monitoring system" means a monitoring system that meets the  
14 requirements of 40 C.F.R. [CFR] Part 96.

15 (141) [(405)] "MWe" means megawatt electrical.

16 (142) [(406)] "N<sub>2</sub>" means nitrogen.

17 (143) [(407)] "Nameplate capacity" means the maximum electrical generating  
18 output (in MWe) that a generator can sustain over a specified period of time if not  
19 restricted by seasonal or other deratings as measured with United States Department of  
20 Energy standards.

21 (144) "Natural conditions" means those naturally occurring phenomena that  
22 reduce visibility as measured in terms of visual range, contrast, or coloration.

23 (145) "Necessary preconstruction approvals or permits" means those permits or

1 approvals required under the administrative regulations approved to the Kentucky SIP  
2 and federal air quality control laws and regulations.

3 (146)(a) "Net emissions increase" means, for any regulated NSR pollutant  
4 emitted by a major stationary source, the amount by which the sum of subparagraphs 1  
5 and 2 of this paragraph exceeds zero:

6 1. An increase in emissions from a particular physical change or change in  
7 method of operation at a stationary source as calculated pursuant to 401 KAR 51:017,  
8 Section 1(4) or 401 KAR 51:052, Section 1(3) ; and

9 2. Any other increases and decreases in actual emissions at the major  
10 stationary source that are contemporaneous with the particular change and are  
11 otherwise creditable.

12 (b) An increase or decrease in actual emissions is contemporaneous with the  
13 increase from the particular change only if:

14 1. For construction that commences prior to January 6, 2002, the change  
15 occurs between the date ten (10) years before construction on the change commences,  
16 and the date that the increase from the change occurs; and

17 2. For construction that commences on and after January 6, 2002, the  
18 change occurs between the date five (5) years before construction on the change  
19 commences, and the date that the increase from the change occurs.

20 (c) An increase or decrease in actual emissions is creditable only if:

21 1. The cabinet or the U.S. EPA has not relied on the change in issuing a  
22 permit for the source pursuant to 401 KAR 51:017, 401 KAR 51:052, or 40 C.F.R.  
23 52.21;

1       2. The permit is in effect at the time the increase or decrease in actual  
2 emissions from the particular change occurs; and

3       3. The increase or decrease in emissions did not occur at a Clean Unit,  
4 except as provided in 401 KAR 51:017, Sections 20(7) or 21(9) or 401 KAR 51:052,  
5 Sections 11(7) or 12(9).

6       (d) An increase or decrease in actual emissions of sulfur dioxide, particulate  
7 matter, or nitrogen oxides that occurs before the applicable minor source baseline date  
8 is creditable only if it is required to be considered in calculating the amount of maximum  
9 allowable increases remaining available. For particulate matter, only PM<sub>10</sub> emissions  
10 are used to evaluate the net emissions increase for PM<sub>10</sub>.

11       (e) An increase in actual emissions is creditable only to the extent that the  
12 new level of actual emissions exceeds the old level.

13       (f) A decrease in actual emissions is creditable only to the extent that:

14       1. The old level of actual emissions or the old level of allowable emissions,  
15 whichever is lower, exceeds the new level of actual emissions;

16       2. The decrease is enforceable as a practical matter at and after the time  
17 that actual construction on the particular change begins;

18       3. The decrease has approximately the same qualitative significance for  
19 public health and welfare as that attributed to the increase from the particular change;  
20 and

21       4. The decrease did not result from the installation of add-on control  
22 technology or application of pollution prevention practices that were relied on in  
23 designating an emissions unit as a Clean Unit under 40 C.F.R. 52.21(y) or under

1 administrative regulation approved pursuant to 40 C.F.R. 51.166(u) or 51.165(d).

2       (g) An increase that results from a physical change at a source occurs if the  
3 emissions unit on which construction occurred becomes operational and begins to emit  
4 a particular pollutant. A replacement unit that requires shakedown becomes operational  
5 only after a reasonable shakedown period, not to exceed 180 days.

6       (h) The term, actual emissions, as defined in subsection 2 of this section does  
7 not apply in determining creditable increases and decreases.

8       (147) [(408)] "New source" means a source, the construction, reconstruction, or  
9 modification of which commenced on or after the classification date as defined in the  
10 applicable administrative regulation, irrespective of a change in emission rate.

11       (148) [(409)] "Nitrogen oxides" means all oxides of nitrogen except nitrous oxide,  
12 as measured by test methods specified by the cabinet.

13       (149) [(440)] "ng" means nanograms.

14       (150) [(444)] "NO" means nitric oxide.

15       (151) [(442)] "NO<sub>2</sub>" means nitrogen dioxide.

16       (152) "Nonattainment major new source review program" or "NSR program"  
17 means a major source preconstruction permit program that has been approved by the  
18 U.S. EPA and incorporated into the Kentucky SIP to implement the requirements of 40  
19 C.F.R. 51.165 and 40 C.F.R. Part 51, Appendix S.

20       (153) [(443)] "NO<sub>x</sub>" means nitrogen oxides.

21       (154) [(444)] "NO<sub>x</sub> allowance" means an authorization to emit one (1) ton of NO<sub>x</sub>  
22 during a control period under the NO<sub>x</sub> Budget Trading Program.

23       (155) [(445)] "NO<sub>x</sub> Allowance Tracking System (NATS)" means the system by

1 which the U.S. EPA records allocations, deductions, and transfers of NOx allowances  
2 under the NOx Budget Trading Program.

3 (156) [(446)] "NOx authorized account representative" means the natural person  
4 who is authorized by the owner or operator to:

5 (a) Represent and legally bind the owner and operator in all matters  
6 pertaining to the NOx Budget Trading Program in accordance with 40 C.F.R. [CFR] 96,  
7 Subpart B for a NOx budget source and all NOx budget units at the source; and

8 (b) Transfer or otherwise dispose of NOx allowances held in the general  
9 account in accordance with 40 C.F.R. [CFR] 96, Subpart F, for a general account.

10 (157) [(447)] "NOx budget emissions limitation" means, for a NOx budget unit,  
11 the tonnage equivalent of the NOx allowances available for compliance deduction for  
12 the unit and for a control period under 401 KAR 51:160 adjusted by deductions of  
13 sufficient NOx allowances to account for:

14 (a) Actual utilization under 40 C.F.R. [CFR] 96.42(e) for the control period;

15 (b) Excess NOx emissions for a prior control period under 40 C.F.R. [CFR]  
16 96.54(d);

17 (c) Withdrawal from the NOx budget program under 40 C.F.R. [CFR] 96.86;  
18 or

19 (d) A change in regulatory status for a NOx budget opt-in source under 40  
20 C.F.R. [CFR] 96.87.

21 (158) [(448)] "NOx budget opt-in source" means an affected facility that has  
22 elected to become a NOx budget unit under the NOx Budget Trading Program and  
23 whose NOx budget opt-in permit has been issued and is in effect.

1        (159) ~~[(149)]~~ "NOx budget source" means a source that includes one (1) or more  
2 NOx budget units.

3        (160) ~~[(120)]~~ "NOx Budget Trading Program" means the multistate NOx air  
4 pollution control and emission reduction program established and administered by the  
5 U.S. EPA under 40 C.F.R. ~~[CFR]~~ 51.121 or 52.34, as a means of mitigating the  
6 interstate transport of O<sub>3</sub>, O<sub>3</sub> precursors, and NOx.

7        (161) ~~[(124)]~~ "NOx budget unit" means a unit that is subject to the NOx Budget  
8 Trading Program emissions limitation under 401 KAR 51:160 or 40 C.F.R. ~~[CFR]~~ 96.80.

9        (162) ~~[(122)]~~ "NOx budget unit operator" means a person who operates,  
10 controls, or supervises a NOx budget unit, a NOx budget source, or a unit for which an  
11 application for a NOx budget opt-in permit under 401 KAR 51:195 is submitted and not  
12 denied or withdrawn and includes a holding company, utility system, or plant manager  
13 of a NOx budget unit or source.

14        (163) ~~[(123)]~~ "NOx budget unit owner" means:

15        (a)     A holder of a portion of the legal or equitable title in a NOx budget unit or  
16 in a unit for which an application for a NOx budget opt-in permit under 401 KAR 51:195  
17 is submitted and not denied or withdrawn;

18        (b)     A holder of a leasehold interest in a NOx budget unit or in a unit for which  
19 an application for a NOx budget opt-in permit under 401 KAR 51:195 is submitted and  
20 not denied or withdrawn;

21        (c)     A purchaser of power from a NOx budget unit or from a unit for which an  
22 application for a NOx budget opt-in permit under 401 KAR 51:195 is submitted and not  
23 denied or withdrawn under a life-of-the-unit, firm power contractual arrangement.

1 However, unless expressly provided for in a leasehold agreement, NOx budget unit  
2 owner shall not include a passive lessor, or a person who has an equitable interest  
3 through the lessor, whose rental payments are not based, either directly or indirectly,  
4 upon the revenues or income from the NOx budget unit or the unit for which an  
5 application for a NOx budget opt-in permit under 401 KAR 51:195 is submitted and not  
6 denied or withdrawn; or

7 (d) For any general account, a person who has an ownership interest with  
8 respect to the NOx allowances held in the general account and who is subject to the  
9 binding agreement for the NOx authorized account representative to represent that  
10 person's ownership.

11 (164) ~~[(424)]~~ "O<sub>2</sub>" means oxygen.

12 (165) ~~[(425)]~~ "O<sub>3</sub>" means ozone.

13 (166) ~~[(426)]~~ "Opacity" means the degree to which emissions reduce the  
14 transmission of light and obscure the view of an object in the background.

15 (167) ~~[(427)]~~ "Operating" means, for a NOx budget unit, having documented heat  
16 input for more than 876 hours in the six (6) months immediately preceding the  
17 submission of an application for an initial NOx budget permit.

18 (168) ~~[(428)]~~ "Operator" means, for a NOx budget unit, any person who  
19 operates, controls, or supervises a NOx budget unit, a NOx budget source, or unit for  
20 which an application for a NOx budget opt-in permit is submitted and not denied or  
21 withdrawn, and includes ~~[-The operator shall include]~~ any holding company, utility  
22 system, or plant manager of the unit or source.

23 (169) ~~[(429)]~~ "Opt-in" means to be elected to become a NOx budget unit under

1 the NOx Budget Trading Program through a final NOx budget opt-in permit.

2 (170) ~~[(130)]~~ "Owner" means, for a NOx budget unit, the following persons:

3 (a) A holder of any portion of the legal or equitable title in a NOx budget unit  
4 or in a unit for which an application for a NOx budget opt-in permit under 40 C.F.R.  
5 ~~[CFR]~~ Part 96.83 is submitted and not denied or withdrawn;

6 (b) A holder of a leasehold interest in a NOx budget unit or in a unit for which  
7 an application for a NOx budget opt-in permit under 40 C.F.R. ~~[CFR]~~ Part 96.83 is  
8 submitted and not denied or withdrawn;

9 (c) A purchaser of power from a NOx budget unit or from a unit for which an  
10 application for a NOx budget opt-in permit under 40 C.F.R. ~~[CFR]~~ Part 96.83 is  
11 submitted and not denied or withdrawn under a life-of-the-unit, firm power contractual  
12 arrangement. However, unless expressly provided for in a leasehold agreement, owner  
13 does ~~[shall]~~ not include a passive lessor, or a person who has an equitable interest  
14 through the lessor, whose rental payments are not based upon the revenues or income  
15 from the NOx budget unit or the unit for which an application for a NOx budget opt-in  
16 permit under 40 C.F.R. ~~[CFR]~~ Part 96.83 is submitted and not denied or withdrawn; or

17 (d) With respect to a general account, a person who has an ownership  
18 interest with respect to NOx allowances held in the general account and who is subject  
19 to the binding agreement for the NOx authorized account representative to represent  
20 that person's ownership interest with respect to NOx allowances.

21 (171) ~~[(134)]~~ "Owner or operator" means a person who owns, leases, operates,  
22 controls, or supervises an affected facility or a source to which an affected facility is a  
23 part.



(172) [(432)] "oz" means ounce.

(173) "Ozone depleting potential" or "ODP" means the ratio of the total amount of ozone destroyed by a fixed amount of an ozone depleting substance to the amount of ozone destroyed by the same mass of trichloroflouromethane, CFC-11; i.e., the ODP of CFC-11 equals 1.0.

(174) "Ozone depleting substance" or "ODS" means any chemical compound regulated under 40 C.F.R. Part 82 with decay products, after the photolysis of the ODS by short-wave ultraviolet light, that are able to catalyze the destruction of stratospheric ozone.

(175) "PAL effective date" means:

(a) The date of issuance of the PAL permit; or

(b) For an increased PAL, the date any emissions unit that is part of the PAL major modification becomes operational and begins to emit the PAL pollutant.

(176) "PAL effective period" means the period beginning with the PAL effective date and ending ten (10) years later.

(177) "PAL major modification" means any physical change in or a change in the method of operation of the PAL source that causes it to emit the PAL pollutant at a level equal to or greater than the PAL.

(178) "PAL permit" means the permit issued by the cabinet that establishes a PAL for a major stationary source.

(179) "PAL pollutant" means the pollutant for which a PAL is established at a major stationary source.

(180) [(433)] "Particulate matter" means a material, except uncombined water [5]

1 ~~that [which]~~ exists in a finely divided form as a liquid or a solid as measured by the  
2 appropriate approved test method.

3 (181) [(134)] "Particulate matter emissions" means, except as used in 40 C.F.R.  
4 [CFR] 60, all finely divided solid or liquid material, other than uncombined water, emitted  
5 to the ambient air as measured by applicable reference methods, or an equivalent or  
6 alternative method specified in 40 C.F.R. [CFR] Chapter I, or by a test method specified  
7 in the approved state implementation plan.

8 (182) [(135)] "Peak load" means the maximum instantaneous operating load.

9 (183) [(136)] "Permitted capacity factor" means the annual permitted fuel use  
10 divided by the manufacturer's specified maximum fuel consumption multiplied by 8,760  
11 hours per year.

12 (184) [(137)] "Person" is defined by KRS 224.01-010(17).

13 (185) "Plantwide applicability limitation" or "PAL" means an emission limitation,  
14 expressed in tons per year, for a pollutant at a major stationary source , that is  
15 enforceable as a practical matter and is established source-wide in accordance with 401  
16 KAR 51:017, Section 23 or 401 KAR 51:052, Section 14.

17 (186) [(138)] "PM10" means particulate matter with an aerodynamic diameter  
18 less than or equal to a nominal ten (10) micrometers as measured by a reference  
19 method based on 40 C.F.R. [CFR] 50, Appendix J and designated in accordance with  
20 40 C.F.R. [CFR] 53, or by an equivalent method designated in accordance with 40  
21 C.F.R. [CFR] 53.

22 (187) [(139)] "PM10 emissions" means finely divided solid or liquid material with  
23 an aerodynamic diameter less than or equal to a nominal ten (10) micrometers emitted

to the ambient air as measured by an applicable reference method, or an equivalent or alternative method, specified in 40 C.F.R. [CFR] Chapter I, or by a test method specified in the approved state implementation plan.

(188) "Pollution control project" or "PCP" means an activity, set of work practices, or project, including pollution prevention, undertaken at an existing emissions unit that reduces emissions of air pollutants from that unit in accordance with 401 KAR 51:017, Section 22 or 401 KAR 51:052, Section 13. Qualifying activities or projects include:

(a) Conventional or advanced flue gas desulfurization or sorbent injection for control of SO<sub>2</sub>;

(b) Electrostatic precipitators, baghouses, high efficiency multiclones, or scrubbers for control of particulate matter or other pollutants;

(c) Flue gas recirculation, low-NO<sub>x</sub> burners or combustors, selective non-catalytic reduction, selective catalytic reduction, low emission combustion for internal combustion (IC) engines, and oxidation-absorption catalyst for control of NO<sub>x</sub>;

(d) Regenerative thermal oxidizers, catalytic oxidizers, condensers, thermal incinerators, hydrocarbon combustion flares, biofiltration, absorbers and adsorbers, and floating roofs for storage vessels for control of VOCs or HAPs;

(e) An activity or project to accommodate switching, or partially switching, to an inherently less polluting fuel, to be limited to the following:

1. Switching from a heavier grade of fuel oil to a lighter fuel oil, or any grade of oil to five one-hundredths (0.05) percent sulfur diesel;

2. Switching from coal, oil, or any solid fuel to natural gas, propane, or

1 gasified coal;

2       3. Switching from coal to wood, excluding construction or demolition waste,  
3 chemical or pesticide treated wood, and other forms of unclean wood;

4       4. Switching from coal to #2 fuel oil with a five-tenths (0.5) percent maximum  
5 sulfur content; and

6       5. Switching from high sulfur coal to low sulfur coal with a maximum one and  
7 two-tenths (1.2) percent sulfur content; and

8       (f) Activities or projects undertaken to accommodate switching from the use  
9 of one ozone depleting substance (ODS) to the use of a substance with a lower or zero  
10 ozone depletion potential (ODP), including changes to equipment needed to  
11 accommodate an activity or project described in subparagraphs 1 and 2 of this  
12 paragraph.

13       1. The productive capacity of the equipment is not increased as a result of  
14 the activity or project; and

15       2. The projected usage of the new substance is lower, on an ODP-weighted  
16 basis, than the baseline usage of the replaced ODS, determined by:

17       a. Determining the ODP of the substances by consulting 40 C.F.R. Part 82,  
18 Subpart A, Appendices A and B;

19       b. Calculating the replaced ODP-weighted amount by multiplying the  
20 baseline actual usage, using the annualized average of any twenty-four (24)  
21 consecutive months of usage within the past ten (10) years, by the ODP of the replaced  
22 ODS;

23       c. Calculating the projected ODP-weighted amount by multiplying the

projected annual usage of the new substance by its ODP; and

d. If the value calculated in clause b of this subparagraph is more than the value calculated in clause c of this subparagraph, then the projected use of the new substance is lower, on an ODP-weighted basis, than the baseline usage of the replaced ODS.

(189) "Pollution prevention" means any activity that through process changes, product reformulation or redesign or substitution of less polluting raw materials, eliminates or reduces the release of air pollutants to the environment, including fugitive emissions, prior to recycling, treatment, or disposal and does not include recycling, other than certain in-process recycling practices, energy recovery, treatment, or disposal.

(190) [(140)] "Portland cement" means a hydraulic cement produced by pulverizing clinker consisting essentially of hydraulic calcium silicates.

(191) [(141)] "Portland cement kiln" means a system, including solid, gaseous or liquid fuel combustion equipment, used to calcine and fuse raw materials, including limestone and clay, to produce Portland cement clinker.

(192) [(142)] "Potential to emit" or "PTE" means:

(a) The maximum capacity of a stationary source to emit a regulated air pollutant given its physical and operational design, where:

1. A physical or operational limitation on the capacity of a source to emit an air pollutant, including air pollution control equipment and restrictions on hours of operation or on the type or amount of material combusted, stored, or processed is [shall be] treated as part of its design if the limitation is enforceable as a practical matter; and

2. This definition does not alter or affect the use of this term for other purposes of the Act or the term "capacity factor" as used in the Acid Rain Program.

(b) For the PSD and NSR programs, the maximum capacity of a stationary source to emit a pollutant under its physical or operational design, where:

1. A physical or operational limitation on the capacity of the source to emit a pollutant, including air pollution control equipment and restrictions on hours of operation or on the type or amount of material combusted, stored, or processed, is treated as part of its design if the limitation or the effect it would have on emissions:

a. Is federally enforceable; or

b. For an actuals PAL, is federally enforceable or enforceable as a practical matter; and

2. Secondary emissions are not counted.

(193) [(443)] "ppb" means parts per billion.

(194) [(444)] "ppm" means parts per million.

(195) [(445)] "ppm(w/w)" means parts per million (weight by weight).

(196) [(446)] "Precalciner kiln" means a kiln where the feed to the kiln system is preheated in cyclone chambers and utilizes a second burner to calcine material in a separate vessel attached to the preheater prior to the final fusion in a kiln that [which] forms clinker.

(197) "Predictive emissions monitoring system" or "PEMS" means all of the equipment necessary to monitor process and control device operational parameters, such as control device secondary voltages and electric currents, and other information, such as gas flow rate, ozone or carbon dioxide concentrations, and to calculate and

1 record the mass emissions rate on a continuous basis.

2 (198) [(147)] "Preheater kiln" means a kiln where the feed to the kiln system is  
3 preheated in cyclone chambers prior to the final fusion in a kiln ~~that~~ [which] forms  
4 clinker.

5 (199) "Prevention of Significant Deterioration Program" or "PSD Program"  
6 means a major source preconstruction program that has been approved by the U.S.  
7 EPA and incorporated into the Kentucky SIP to implement the requirements of 40  
8 C.F.R. 51.166 or 52.21.

9 (200) "Primary pollutant" means a regulated NSR pollutant for which a pollution  
10 control project is undertaken to reduce emissions of that pollutant.

11 (201) "Project" means a physical change in or change in method of operation of  
12 an existing major stationary source.

13 (202) "Projected actual emissions" means:

14 (a) The maximum annual rate, in tons per year, at which an existing  
15 emissions unit is projected to emit a regulated NSR pollutant in any one of the five (5)  
16 years, in a twelve (12) month period, following the date the unit resumes regular  
17 operation after the project, or in any one (1) of the ten (10) years following that date, if:

18 1. The project involves increasing the emissions unit's design capacity or its  
19 potential to emit the regulated NSR pollutant; and

20 2. Full utilization of the unit would result in a significant emissions increase or  
21 a significant net emissions increase at the major stationary source.

22 (b) To determine projected actual emissions, before beginning actual  
23 construction, the owner or operator of the major stationary source:

1        1a. Considers all relevant information, including historical operational data and  
2 the company's own representations of expected and highest projected business activity;  
3 filings with the cabinet and the U.S. EPA; and compliance plans under the Kentucky  
4 SIP;

5        b. Includes fugitive emissions and emissions associated with startups,  
6 shutdowns, and malfunctions; and

7        c. Excludes, in calculating any increase in emissions that results from a  
8 project, that portion of the unit's emissions following the project that an existing unit  
9 could have accommodated during the consecutive twenty-four (24) month period used  
10 to establish the baseline actual emissions and that are also unrelated to the project,  
11 including any increased utilization due to product demand growth; or

12        2. Elects to use the emissions unit's potential to emit, in tons per year,  
13 instead of using subparagraph 1 of this paragraph to determine projected actual  
14 emissions.

15        (203) [(148)] "psia" means pounds per square inch absolute.

16        (204) [(149)] "psig" means pounds per square inch gauge.

17        (205) "RACT/BACT/LAER Clearinghouse" or "RBLC" means a collection of  
18 RACT/BACT/LAER technologies maintained on-line by the U.S. EPA.

19        (206) "Reactivation of a very clean coal-fired EUSGU" means a physical change  
20 or change in the method of operation associated with the commencement of  
21 commercial operations by a coal-fired utility unit after a period of discontinued operation  
22 if the unit:

23        (a) Has not been in operation for the two (2) year period between November



1 15, 1988, and November 15, 1990, and the emissions from that unit continue to be  
2 carried in the Kentucky emissions inventory after November 15, 1990;

3 (b) Was equipped prior to shutdown with a continuous system of emissions  
4 control achieving a removal efficiency for sulfur dioxide of no less than eighty-five (85)  
5 percent and a removal efficiency for particulates of no less than ninety-eight (98)  
6 percent;

7 (c) Is equipped with low-NOx burners prior to the time of commencement of  
8 operations following reactivation; and

9 (d) Is otherwise in compliance with the requirements of 42 U.S.C. 7401 to  
10 7671q.

11 (207) "Reasonable further progress" means annual incremental reductions in  
12 emissions of the relevant air pollutant as required by 42 U.S.C. 7501 to 7515 or may  
13 reasonably be required by the U.S. EPA for the purpose of ensuring the attainment of  
14 the applicable ambient air quality standard by the applicable date specified.

15 (208) [(450)] "Reconstruction" means the replacement of components of an  
16 existing affected facility to the extent that:

17 (a) The fixed capital cost of the new components exceeds fifty (50) percent of  
18 the fixed capital cost that would be required to construct a comparable entirely new  
19 affected facility; and

20 (b) It is technologically and economically feasible to meet the applicable  
21 requirements of 401 KAR Chapters 50 to 65.

22 (209) [(454)] "Reference method" means a method of sampling and analyzing for  
23 an air pollutant as prescribed by 40 C.F.R. [CFR] 50, Appendices A to N; 40 C.F.R.

[CFR] 60, Appendices A and B; and 40 C.F.R. [CFR] 61, Appendix B.

(210) "Regulated NSR pollutant" means the following:

(a) A pollutant for which a national ambient air quality standard has been promulgated and any constituents or precursors for such pollutants identified by the U.S. EPA;

(b) A pollutant that is subject to any standard promulgated under 41 U.S.C. 7411;

(c) A pollutant that is subject to a standard promulgated under or established by 42 U.S.C. 7671 to 7671q; or

(d) A pollutant that otherwise is subject to regulation under 42 U.S.C. 7401 to 7671q, except that any hazardous air pollutant (HAP) listed in 42 U.S.C. 7412 or added to the list pursuant to 42 U.S.C. 7412(b)(3), is not a regulated NSR pollutant unless the listed HAP is also regulated as a constituent or precursor of a general pollutant listed under 42 U.S.C. 7408.

(211) "Replacement unit" means an emissions unit that does not generate creditable emissions reductions by shutting down the existing emissions unit that is replaced, and that:

(a)1. Is a reconstructed unit within the meaning of 40 C.F.R. 60.15(b)(a) or that completely takes the place of an existing emissions unit;

2. Is identical to or functionally equivalent to the replaced emissions unit; and

3. Does not alter the basic design parameters of the process unit.

(b) Replaces a unit that:

1. Is permanently removed from the major stationary source, is otherwise

permanently disabled, or is prohibited from operating by a permit that is enforceable as a practical matter; and

2. If brought back into operation, is considered a new emissions unit.

(212)(a) "Repowering" means:

1. Replacement of an existing coal-fired boiler with one (1) of the following clean coal technologies: atmospheric or pressurized fluidized bed combustion, integrated gasification combined cycle, magneto hydrodynamics, direct and indirect coal-fired turbines, integrated gasification fuel cells, or as determined by the U.S. EPA in consultation with the Secretary of Energy, a derivative of one or more of these technologies, or another technology capable of controlling multiple combustion emissions simultaneously with improved boiler or generation efficiency and with significantly greater waste reduction relative to the performance of technology in widespread commercial use as of November 15, 1990; and

2. An oil or gas-fired unit that has been awarded clean coal technology demonstration funding as of January 1, 1991 by the Department of Energy.

(b) A permit application from a source that satisfies this definition shall receive expedited consideration by the cabinet and is granted an extension under 42 U.S.C. 7651h.

(213) "Responsible official" means:

(a) For a corporation: a president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or other person who performs similar policy or decision-making functions for the corporation, or a duly authorized representative of that person if the representative is responsible for the overall operation

1 of one (1) or more manufacturing, production, or operating facilities applying for or  
2 subject to a permit; and

3       1. The facilities employ more than 250 persons or have gross annual sales  
4 or expenditures exceeding \$25,000,000 in second quarter 1980 dollars; or

5       2. The delegation of authority to the representative is approved in advance  
6 by the cabinet;

7       (b) For a partnership or sole proprietorship, a general partner or the  
8 proprietor, respectively;

9       (c) For a municipality, state, federal, or other public agency, a principal  
10 executive officer or ranking elected official. The principal executive officer of a federal  
11 agency includes the chief executive officer having responsibility for the overall operation  
12 of a principal geographic unit of the agency; or

13       (d) For the acid rain portion of a permit for an affected source, the designated  
14 representative.

15       (214) [(452)] "Run" means the net period of time, either intermittent or  
16 continuous, within the limits of good engineering practice during which an emission  
17 sample is collected.

18       (215) [(453)] "S" means at standard conditions.

19       (216) [(454)] "sec" means second.

20       (217) [(455)] "Secondary emissions" means emissions that:

21       (a)[4-] Occur as a result of the construction or operation of a major stationary  
22 source or major modification; and [2-] do not come from the major stationary source or  
23 major modification itself;

(b) Are specific, well defined, quantifiable, and impact the same general area as the stationary source modification that ~~[which]~~ caused the secondary emissions;

(c) Include emissions from an offsite support facility that ~~[which]~~ would not otherwise be constructed or increase its emissions as a result of the construction or operation of the major stationary source or major modification; and

(d) Do~~es~~ not include emissions that ~~[which]~~ come directly from a mobile source, including emissions from the tailpipe of a motor vehicle, a train, or vessel.

(218) ~~[(456)]~~ "Serious nonattainment county" or "serious nonattainment area" means a county or portion of a county designated serious nonattainment for the one (1) hour national ambient air quality standard for ozone in 401 KAR 51:010.

(219) ~~[(457)]~~ "Severe nonattainment county" or "severe nonattainment area" means a county or portion of a county designated severe nonattainment for the one (1) hour national ambient air quality standard for ozone in 401 KAR 51:010.

(220) ~~[(458)]~~ "Shutdown" means the cessation of an operation.

(221) "Significant" means:

(a) For 401 KAR 51:017, in reference to a net emissions increase or the potential of a source to emit any of the pollutants listed in the following table, a rate of emissions that would equal or exceed a corresponding rate listed in the table:

<u>POLLUTANT</u>	<u>EMISSIONS RATE</u>
<u>Carbon monoxide</u>	<u>100 tons per year (tpy)</u>
<u>Ozone depleting substance</u>	<u>100 tpy</u>
<u>Nitrogen oxides</u>	<u>40 tpy</u>
<u>Sulfur dioxide</u>	<u>40 tpy</u>

<u>Particulate matter</u>	<u>25 tpy of particulate matter emissions</u>
	<u>15 tpy of PM<sub>10</sub> emissions</u>
<u>Ozone</u>	<u>40 tpy of volatile organic compounds</u>
<u>Lead</u>	<u>0.6 tpy</u>
<u>Asbestos</u>	<u>0.007 tpy</u>
<u>Beryllium</u>	<u>0.0004 tpy</u>
<u>Mercury</u>	<u>0.1 tpy</u>
<u>Vinyl chloride</u>	<u>1 tpy</u>
<u>Fluorides</u>	<u>3 tpy</u>
<u>Sulfuric acid mist</u>	<u>7 tpy</u>
<u>Hydrogen sulfide (H<sub>2</sub>S)</u>	<u>10 tpy</u>
<u>Total reduced sulfur (including H<sub>2</sub>S)</u>	<u>10 tpy</u>
<u>Reduced sulfur compounds (including H<sub>2</sub>S)</u>	<u>10 tpy</u>
<u>Municipal waste combustor organics (measured as total tetra- through octa-chlorinated dibenzo-p-dioxins and dibenzofurans)</u>	<u>3.2 x 10<sup>-6</sup> megagrams per year (Mg/y) (3.5 x 10<sup>-6</sup> tpy)</u>
<u>Municipal waste combustor metals (measured as particulate matter)</u>	<u>14 Mg/y (15 tpy)</u>
<u>Municipal waste combustor acid gases (measured as sulfur dioxide and hydrogen chloride)</u>	<u>36 Mg/y (40 tpy)</u>

(b) For 401 KAR 51:017, in reference to a net emissions increase or the potential of a source to emit a regulated NSR pollutant that is not listed in the table in paragraph (a) of this subsection, any emissions rate.

(c) For 401 KAR 51:017, in reference to an emissions rate or a net emissions increase associated with a major stationary source or major modification, which is to be

constructed within ten (10) kilometers of a Class I area, an impact on that area equal to or greater than one (1)  $\mu\text{g}/\text{m}^3$  over a twenty-four (24) hour average.

(d) For 401 KAR 51:052, in reference to a net emissions increase or the potential of a source to emit any of the pollutants listed in the following table, a rate of emissions that would equal or exceed a corresponding rate listed in the table:

<u>POLLUTANT</u>	<u>EMISSIONS RATE</u>
<u>Carbon monoxide</u>	<u>100 tons per year (tpy)</u>
<u>Ozone depleting substance</u>	<u>100 tpy</u>
<u>Nitrogen oxides</u>	<u>40 tpy</u>
<u>Sulfur dioxide</u>	<u>40 tpy</u>
<u>Ozone</u>	<u>40 tpy of volatile organic compounds</u>
<u>Lead</u>	<u>0.6 tpy</u>

(222) "Significant emissions increase" means, for a regulated NSR pollutant, an increase in emissions that is equal to or greater than the emission level that is significant for that pollutant.

(223) "Significant emissions unit" means an emissions unit that emits or has the potential to emit a PAL pollutant in an amount that is equal to or greater than the applicable significant level as defined in subsection (221) of this section or in 42 U.S.C. 7401 to 7671q, whichever is lower for that PAL pollutant, but less than the amount that would qualify the unit as a major emissions unit.

(224) "Small emissions unit" means an emissions unit that emits or has the potential to emit the PAL pollutant in an amount less than the PAL pollutant's applicable significant level as defined in subsection (220) of this section; or in 42 U.S.C. 7401 to

1 7671q, whichever is lower.

2 (225) [(159)] "SO<sub>2</sub>" means sulfur dioxide.

3 (226) [(160)] "Source" means one (1) or more affected facilities contained within  
4 a given contiguous property line, which means the property is separated only by a  
5 public thoroughfare, stream, or other right of way.

6 (227) [(161)] "sq" means square.

7 (228) [(162)] "Stack or chimney" means a flue, conduit, or duct arranged to  
8 conduct emissions to the atmosphere.

9 (229) [(163)] "Standard" means an emission standard, a standard of  
10 performance, or an ambient air quality standard as promulgated in 401 KAR Chapters  
11 50 to 65, including the emission control requirements necessary to comply with 401  
12 KAR Chapter 51.

13 (230)[(164)] "Standard conditions":

14 (a) For source measurements means twenty (20) degrees Celsius (sixty-eight  
15 (68) degrees Fahrenheit) and a pressure of 760 mm Hg (29.92 in. of Hg).

16 (b) For the purpose of air quality determinations means twenty-five (25)  
17 degrees Celsius and a reference pressure of 760 mm Hg.

18 (231)[(165)] "Start-up" means the setting in operation of an affected facility.

19 (232)[(166)] "State implementation plan" or "SIP" means the most recently  
20 prepared plan or revision required by 42 U.S.C. [USC] 7410 that [which] has been  
21 approved by the U.S. EPA.

22 (233) "Stationary source" means a building, structure, facility, or installation that  
23 emits or may emit a regulated NSR pollutant.



1        (234) ~~[(167)]~~ "Submit" means to send or transmit a document, information, or  
2 correspondence in accordance with an applicable requirement.

3        (235) ~~[(168)]~~ "TAPPI" means Technical Association of the Pulp and Paper  
4 Industry.

5        (236) "Temporary clean coal technology demonstration project" means a clean  
6 coal technology demonstration project that is operated for a period of five (5) years or  
7 less and that complies with the Kentucky SIP and with other requirements necessary to  
8 attain and maintain the national ambient air quality standards during and after the  
9 project is terminated.

10       (237) ~~[(169)]~~ "Ton" or "tonnage" means, for a NOx budget source, a short ton or  
11 ~~[(2,000 pounds)]~~. For determining compliance with the NOx budget emissions  
12 limitation, total tons for a control period is ~~[shall be]~~ calculated as the sum of all  
13 recorded hourly emissions, ~~[(or the tonnage equivalent of the recorded hourly~~  
14 ~~emissions rates, )]~~ in accordance with 40 C.F.R. ~~[CFR]~~ 96, Subpart H with any  
15 remaining fraction of a ton equal to or greater than 0.50 ton deemed to equal one (1) ton  
16 and any fraction of a ton less than 0.50 ton deemed to equal zero tons.

17       (238) ~~[(170)]~~ "Total suspended particulates" or "TSP" means particulate matter  
18 as measured by the method described in 40 C.F.R. ~~[CFR]~~ 50, Appendix B.

19       (239) ~~[(171)]~~ "tpy" means tons per year.

20       (240) ~~[(172)]~~ "TSS" means total suspended solids.

21       (241) ~~[(173)]~~ "Uncombined water" means water that ~~[which]~~ can be separated  
22 from a compound by ordinary physical means and that ~~[which]~~ is not bound to a  
23 compound by internal molecular forces.

(242) [(174)] "Unit" means a fossil fuel-fired stationary boiler, combustion turbine, or combined cycle system.

(243) [(175)] "Urban county" means a county that ~~[which]~~ is a part of an urbanized area with a population of greater than 200,000 based upon the 1980 census. If a portion of a county is a part of an urbanized area, then the entire county is ~~[shall be]~~ classified as urban for ~~[with respect to]~~ the administrative regulations of the Division for Air Quality.

(244) [(176)] "Urbanized area" means an area defined as such by the U.S. Department of Commerce, Bureau of Census.

(245) [(177)] "U.S. EPA" means the United States Environmental Protection Agency.

(246) [(178)] "UTM" means Universal Transverse Mercator.

(247) "Visibility impairment" means a humanly perceptible change in visibility such as visual range, contrast, or coloration, from that which would have existed under natural conditions.

(248) [(179)] "Volatile organic compound" or "VOC" means an organic compound that participates in atmospheric photochemical reactions. This includes an organic compound other than the following compounds: methane; ethane; carbon monoxide; carbon dioxide; carbonic acid; metallic carbides or carbonates; ammonium carbonate; methylene chloride; 1,1,1-trichloroethane (methyl chloroform) trichlorofluoromethane (CFC-11); dichlorodifluoromethane (CFC-12) chlorodifluoromethane (HCFC-22); trifluoromethane (HFC-23); 1,1,2-trichloro-1,2,2-trifluoroethane (CFC-113); 1,2-dichloro-1,1,2,2-tetrafluoroethane (CFC-114); chloropentafluoroethane (CFC-115); 2,2-

1 dichloroethane (HCFC-123); 1,1,1,2-tetrafluoroethane (HFC-134a); 1,1-dichloro 1-  
2 fluoroethane (HCFC-141b); 1-chloro 1,1-difluoroethane (HCFC-142b); 2-chloro-1,1,1, 2-  
3 tetrafluoroethane (HCFC-124); pentafluoroethane (HFC-125); 1,1,2,2-tetrafluoroethane  
4 (HFC-134); 1,1,1-trifluoroethane (HFC-143a); 1,1-difluoroethane (HFC-152a);  
5 parachlorobenzotrifluoride (PCBTF); cyclic, branched, or linear completely methylated  
6 siloxanes; acetone; perchloroethylene (tetrachloroethylene); 3,3-dichloro-1,1,1,2,2-  
7 pentafluoropropane (HCFC-225ca); 1,3-dichloro-1,1,2,2,3-pentafluoropropane (HCFC-  
8 225cb); 1,1,1,2,3,4,4, 5,5,5-decafluoropentane (HFC 43-10mee); difluoromethane  
9 (HFC-32); ethylfluoride (HFC-161); 1,1,1,3,3,3-hexafluoropropane (HFC-236fa);  
10 1,1,2,2,3-pentafluoropropane (HFC-245ca); 1,1,2,3,3-pentafluoropropane (HFC-245ea);  
11 1,1,1,2,3-pentafluoropropane (HFC-245eb); 1,1,1,3,3-pentafluoropropane (HFC-245fa);  
12 1,1,1,2,3,3-hexafluoropropane (HFC-236ea); 1,1,1,3,3-pentafluorobutane (HFC-  
13 365mfc); chlorofluoromethane (HCFC-31); 1 chloro-1-fluoroethane (HCFC-151a); 1,2-  
14 dichloro-1,1,2-trifluoroethane (HCFC-123a); 1,1,1,2,2,3,3,4,4-nonafluoro-4-methoxy-  
15 butane( $C_4F_9OCH_3$ ); 2-(difluoromethoxymethyl)-1,1,1,2,3,3,3-heptafluoropropane( $(CF_3)_2$   
16  $CFCF_2OCH_3$ );1-ethoxy-1,1,2,2,3,3,4,4,4-nonafluorobutane( $C_4F_9OC_2H_5$ ); 2-  
17 (ethoxydifluoromethyl)-1,1,1,2,3,3,3-heptafluoropropane ( $(CF_3)_2 CFCF_2OC_2H_5$ ); methyl  
18 acetate; and perfluorocarbon compounds which fall into the following classes:

19 (a) Cyclic, branched, or linear, completely fluorinated alkanes;

20 (b) Cyclic, branched, or linear, completely fluorinated ethers with no  
21 unsaturations;

22 (c) Cyclic, branched, or linear, completely fluorinated tertiary amines with no  
23 unsaturations;

(d) Sulfur containing perfluorocarbons with no unsaturations and with sulfur bonds only to carbon and fluorine; or

(e) Other compounds that have negligible photochemical reactivity and which are inadvertently measured by test methods that have been approved by the cabinet and the U.S. EPA.

(249) [(180)] "yd" means yard.

Section 2. Incorporation by Reference. (1) The following material is incorporated by reference:

(a)1. "Standard Industrial Classification Manual, 1987, as published by the Office of Management and Budget."

2. The manual is available under Order No. PB 87-100012 from the National Technical Information Service, 5285 Port Royal Road, Springfield, Virginia, 22161; Phone (703) 487-4650.

(b)1. Documents from the Code of Federal Regulations:

a. "40 C.F.R. Part 82, Appendix A to Subpart A of Part 82 – Class I Controlled Substances, as published in the Code of Federal Regulations, July 1, 2003."

b. "40 C.F.R. Part 82, Appendix B to Subpart A of Part 82 – Class II Controlled Substances, as published in the Code of Federal Regulations, July 1, 2003."

2. Copies of the Code of Federal Regulations may be obtained from the Superintendent of Documents, U.S. Government Printing Office, Attn: New Orders, P.O. Box 371954, Pittsburgh, PA 15250-7954; Phone (202) 512-1800; Fax (202) 512-2250.

(2) The documents incorporated by reference in subsection (1) of this section

are available for public inspection and copying (subject to copyright law) at the following main and regional offices of the Kentucky Division for Air Quality during the normal working hours of 8 a.m. to 4:30 p.m., local time:

(a) Kentucky Division for Air Quality, 803 Schenkel Lane, Frankfort, Kentucky 40601-1403, (502) 573-3382;

(b) Ashland Regional Office, 1550 Wolohan Drive, Suite 1, Ashland, Kentucky, 41102, (606) 929-5285;

(c) Bowling Green Regional Office, 1508 Westen Avenue, Bowling Green, Kentucky, 42104, (270) 746-7475;

(d) Florence Regional Office, 8020 Veterans Memorial Drive, Suite 110, Florence, Kentucky, 41042, (859) 525-4923;

(e) Hazard Regional Office, 233 Birch Street, Suite 2, Hazard, Kentucky, 41701, (606) 435-6022;

(f) London Regional Office, 875 S. Main Street, London, Kentucky, 40741, (606) 878-0157;

(g) Owensboro Regional Office, 3032 Alvey Park Drive, W., Suite 700, Owensboro, Kentucky, 42303, (270) 687-7304;

(h) Paducah Regional Office, 4500 Clarks River Road, Paducah, Kentucky, 42003, (270) 898-8468; and

(i) Frankfort Regional Office, 643 Teton Trail, Suite B, Frankfort, Kentucky 40601, (502) 564-3358.

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Date

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LaJuana S. Wilcher, Secretary  
Environmental and Public Protection Cabinet

**PUBLIC HEARING:** A public hearing on this administrative regulation shall be held on April 30, 2004, at 10:00 a.m. (Eastern Time) in the Conference Room of the Division for Air Quality at 803 Schenkel Lane, Frankfort, Kentucky. Individuals interested in being heard at this hearing shall notify this agency in writing by April 23, 2004, five (5) workdays prior to the hearing, of their intent to attend.

This hearing is open to the public. Any person who wishes to be heard will be given an opportunity to comment on the proposed administrative regulation. A transcript of the public hearing will be made. If you request a transcript, you will be required to pay for it.

If you do not wish to be heard at the public hearing, you may submit written comments on the proposed administrative regulation. Written comments shall be accepted until April 30, 2004. Send written notification of intent to be heard at the hearing or written comments on the proposed administrative regulation to the contact person.

The hearing facility is accessible to persons with disabilities. Requests for reasonable accommodations, including auxiliary aids and services necessary to participate in the hearing, may be made to the contact person at least five (5) workdays prior to the hearing.

**CONTACT PERSON:** Millie Ellis, Environmental Technologist III, Regulation Development Section, Division for Air Quality, 803 Schenkel Lane, Frankfort, Kentucky 40601, telephone number (502) 573-3382, and facsimile number (502) 573-3787.

## REGULATORY IMPACT ANALYSIS AND TIERING STATEMENT

**Administrative Regulation #:** 401 KAR 51:001

**Contact person:** Millie Ellis

- (1) **Provide a brief summary of:**
  - (a) **What this administrative regulation does:**

The administrative regulation provides the definitions of terms used in the Kentucky administrative regulations contained in 401 KAR Chapter 51.
  - (b) **The necessity of this administrative regulation:**

The administrative regulation defines the terms used in Kentucky administrative regulations contained in 401 KAR Chapter 51.
  - (c) **How this administrative regulation conforms to the content of the authorizing statutes:**

The definitions contained in this administrative regulation that have federal definitions have been clarified and simplified and have been formatted to conform to KRS Chapter 13A drafting requirements, but are not more stringent or otherwise different than the corresponding federal definitions.
  - (d) **How this administrative regulation currently assists or will assist in the effective administration of the statutes:**

The administrative regulation provides the definitions of terms used in the Kentucky administrative regulations contained in 401 KAR Chapter 51.
- (2) **If this is an amendment to an existing administrative regulation, provide a brief summary of:**
  - (a) **How the amendment will change this existing administrative regulation:**

The amendment adds the definitions of terms used in the Kentucky administrative regulations implementing the revision to the federal Prevention of Significant Deterioration (PSD) and Nonattainment New Source Review (NSR) regulations, which is found in pertinent part at 40 C.F.R. 51.165 and 51.166 as amended at 65 Fed. Reg. 80186 (December 31, 2002) and at 68 Fed. Reg. 63021 (November 7, 2003). The amendment also proposes revisions to make the administrative regulation conform to KRS Chapter 13A.
  - (b) **The necessity of the amendment to this administrative regulation:**

This amendment is necessary in order for the cabinet to ensure the Kentucky State Implementation Plan (SIP) continues to meet the requirements of the federal mandate for major sources constructing and modifying in the Commonwealth. The amendment will add the definitions of terms used in 401 KAR 51:017 and 401 KAR 51:052, which are being amended in a separate action to implement the revisions to the federal Prevention of Significant Deterioration (PSD) and Nonattainment New Source Review (NSR) regulations promulgated in the *Federal Register*, 67 FR 80185 (December 31, 2002) and at 68 Fed. Reg. 63021 (November 7,



2003). This administrative regulation is also being amended in order for the administrative regulation to conform to KRS Chapter 13A drafting requirements.

**(c) How the amendment conforms to the content of the authorizing statutes:**

The definitions contained in this administrative regulation that have federal definitions have been clarified and simplified but are not more stringent or otherwise different than the corresponding federal definitions.

**(d) How the amendment will assist in the effective administration of statutes:**

The amendment to the administrative regulation will provide the definitions of terms used in 401 KAR 51:017 and 401 KAR 51:052, which are being amended in a separate action, to implement the revisions to the federal Prevention of Significant Deterioration (PSD) and Nonattainment New Source Review (NSR) regulations promulgated in the *Federal Register*, 67 FR 80185 (December 31, 2002) and at 68 Fed. Reg. 63021 (November 7, 2003).

**(3) List the type and number of individuals, businesses, organizations, or state and local governments affected by this administrative regulation.**

This administrative regulation does not directly impact any individual, business, organization, or state or local government. This administrative regulation merely defines the terms used in administrative regulations contained in 401 KAR Chapter 51.

**(4) Provide an assessment of how the above group or groups will be impacted by either the implementation of this administrative regulation, if new, or by the change if it is an amendment:**

This administrative regulation does not directly impact any individual, business, organization, or state or local government. This administrative regulation merely defines the terms used in administrative regulations contained in 401 KAR Chapter 51.

**(5) Provide an estimate of how much it will cost to implement this administrative regulation:**

**(a) Initially:**

Since this administrative regulation merely defines terms used in other administrative regulations contained in 401 KAR Chapter 51, there are no known initial costs for implementation of this administrative regulation.

**(b) On a continuing basis:**

Since this administrative regulation merely defines terms used in other administrative regulations contained in 401 KAR Chapter 51, there are no known continuing costs related to this administrative regulation.

**(6) What is the source of the funding to be used for the implementation and enforcement of this administrative regulation:**

No new revenue is required because there are no known costs related to this administrative regulation.

- (7) Provide an assessment of whether an increase in fees or funding will be necessary to implement this administrative regulation, if new, or by the change if it is an amendment.**

No increase in fees or funding is necessary to implement this administrative regulation.

- (8) State whether or not this administrative regulation establishes any fees or directly or indirectly increases any fees.**

This administrative regulation does not establish any fees, nor does it directly or indirectly increase any fees.

- (9) TIERING: Is tiering applied? (Explain why tiering was or was not used.)**

Tiering is not applied. The proposed administrative regulation imposes no requirements; therefore, tiering is not applicable.

## FISCAL NOTE ON LOCAL GOVERNMENT

**Administrative Regulation #:** 401 KAR 51:001

**Contact person:** Millie Ellis

New ☐

Amendment ☒

1. **Does this administrative regulation relate to any aspect of a local government, including any service provided by that local government?**

Yes ☐

No ☒

2. **State what unit, part or division of local government this administrative regulation will affect.**

No known unit, part, or division of local government will be affected by this amendment.

3. **State the aspect or service of local government to which this administrative regulation relates.**

This amendment does not relate to any known aspect or service of local government.

4. **Estimate the effect of this administrative regulation on the expenditures and revenues of a local government for the first full year the regulation is to be in effect. If specific dollar estimates cannot be determined, provide a brief narrative to explain the fiscal impact of the administrative regulation.**

**Revenues (+/-):**

There is no known effect on current revenues.

**Expenditures (+/-):**

There is no known effect on current expenditures.

**Other Explanation:**

There is no further explanation.

**SUMMARY OF NEW MATERIAL INCORPORATED BY REFERENCE  
IN 401 KAR 51:001**

**40 C.F.R. 82 Subpart A, Appendix A - Class I Controlled Substances  
40 C.F.R. 82 Subpart A, Appendix B - Class II Controlled Substances**

40 C.F.R. 82 governs the phaseout of ozone-depleting substances (ODS) under sections 602, 604-606, and 614 of Title IV of the Clean Air Act. Subpart A, appendices A and B list Class I and Class II ODS regulated by the program, respectively, as well as the ozone-depleting potential (ODP) of those substances. Under the amendment to this administrative regulation, sources utilizing the pollution control project (PCP) exclusion must use this data in calculating the environmental benefit of a project if the project involves switching from one ODS to another.

Implementation of this administrative regulation will require no additional state funding.

This material from the Code of Federal Regulations consists of two (2) pages and includes:

Class I Controlled Substances  
Class II Controlled Substances